Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
Connect America Fund	)	WC Docket No. 10-90
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
Establishing Just and Reasonable Rates for Local Exchange Carriers	)	WC Docket No. 07-135
High-Cost Universal Service Support	)	WC Docket No. 05-337
Developing an Unified Intercarrier Compensation Regime	)	CC Docket No. 01-92
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
Lifeline and Link-Up	)	WC Docket No. 03-109
Universal Service Reform – Mobility Fund	)	WT Docket No. 10-208

COMMENTS OF THE AD HOC TELECOMMUNICATIONS USERS COMMITTEE

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Summary

The Commission should represcribe a lower interstate rate of return. The current interstate rate of return is far too high. For decades authorities have recognized that there is no perfectly correct rate of return. Rather than expend scarce resources sifting through conflicting models and multiple opinions searching for the perfect "rate of return," the Commission should rely on documented, publicly available data to determine the Weighted Average Cost of Capital for providers who will receive CAF funds. The NYU Stern School of Business provides such data and regularly updates it.

Given that (1) recipients of CAF will rarely, if ever, face competition in the provisioning of Broadband service and (2) they will have an opportunity to assess the business case for Broadband service before accepting CAF support, the Commission should not inflate the weighted average cost of capital derived from the NYU data with a risk premium in represcribing an interstate rate of return.

The Commission should also closely monitor rates for Internet service. The important objectives that the Commission seeks to serve by facilitating the availability of Broadband service will be frustrated if Internet service is not made available at reasonable rates. Since about 96% of the American people live in markets served by only one or two providers of Broadband service, the Commission should be concerned that providers may set prices to maximize their profits and in doing so may repress demand for Internet service. If that condition occurs the Commission should reconsider past decisions that could

prevent it from regulating the rates for Internet service provided under conditions of market failure, or the Commission should adopt new policies to address such a problem. The prescribed interstate rate of return may prove important to the ongoing review of Internet service rates.

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COMMENTS OF
THE AD HOC TELECOMMUNICATIONS USERS COMMITTEE

The Ad Hoc Telecommunications Users Committee (Ad Hoc) hereby responds to the Commission's invitation for comments on whether it should adjust the authorized interstate rate of return for rate of return carriers.[1] The Commission last prescribed an interstate rate of return for interstate

[1] *Connect America Fund* (*Report and Order and Further Notice of Proposed Rulemaking*), FCC 11-161, paras. 1044 -60 (released November 18, 2011).

telecommunications carriers in 1990, setting it at 11.25%.[2] The Commission has tentatively concluded that, "[t]he current rate of return is no longer consistent with the Act and today's financial conditions."[3] Ad Hoc agrees.

These comments point to public data that the Commission can use to prescribe an interstate rate of return and counsel against adding a risk premium to the weighted average cost of capital. Supporting wide availability of Broadband service is, however, only part of the Commission's job if it wants our Nation to lead the globe in consumer adoption and use of Internet services. Accordingly these comments also urge the Commission to pay close attention to Internet service rates.

A. Public Data Can Be Used For Determining The WACC

The Commission asks at paragraph 1050 of the *Report and Order and Further Notice of Proposed Rulemaking* whether there are publicly available data that could provide the information necessary to develop the weighted average cost of capital (WACC).[4] The existing rule limited the pool of carriers upon which the calculations were developed to those who were subject to the Commission's cost allocation and reporting requirements, -- requirements that produced data that

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[2] *Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers,* CC Docket No. 89-624, 5 FCC Rcd 7507 (1990) (*Prescription Order*).

[3] *Report and Order and Further Notice of Proposed Rulemaking*, para. 638.

[4] The terms rate of return and weighted average cost of capital are sometimes used interchangeably, but they are not always the same. A WACC represents the mathematical outcome of the modeling of cost of debt and cost of equity facing a regulated firm. The rate of return is set premised upon the result of the WACC analysis and may or may not incorporate a judgmental adjustment to the WACC.

the Commission used to prescribe the interstate rate of return. Developing a WACC is now complicated because the Commission eliminated cost allocation and ARMIS requirements for many of those carriers, a fact acknowledged in the *Report and Order and Further Notice of Proposed Rulemaking.* Accordingly, the Commission has asked whether additional data sets exist that could be used for that purpose.[5]

Professor Aswath Damodaran of the Stern School of Business at NYU publishes an annual WACC analysis based upon the Value Line database for 5928 publically traded corporations (referred to hereinafter as the *NYU Stern School Compilation)*.[6] The most recent, January 2011, version contains WACC estimates for 98 separate industry segments, and for the group as a whole. The "telecom utility" sector (identified as SIC 4810 in the Compilation) contains data based upon 28 telecom firms.[7]

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[5] *Report and Order and Further Notice of Proposed* Rulemaking, at 1050.

[6] Aswath Damodaran is the Kerschner Family Chair in Finance Education at the Stern School of Business at NYU. His annual compilation of "Cost of Capital by Sector" for January, 2011 can be found at http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/wacc.htm. Data will be updated for January 2012 at some point in the future.

[7] The 28 firms identified in the "Telecom Utility" include carriers of all sizes, both ILECs and CLECs and some alternative providers. Firms included in the January, 2011 summary are Alaska Communications, B Communications Ltd, BCE Inc., BT Group ADR, CenturyLink Inc., Cincinnati Bell, Consolidated Communications, Deutsche Telekom ADR, ERF Wireless Inc., FairPoint Communications, Frontier Communications, Hellenic Telecom Org. SA (OTE), Hickory Tech Corp., IDT Corp., ITC Deltacom, Level 3 Communications, Manitoba Telecom Services Inc., New Ulm Telecom Inc., Otelco Inc., Spot Mobile International Ltd., SureWest Communications, Telefonica SA ADR, Telefonos de Mexico ADR, tw telecom, Warwick Valley Tel Company, Windstream Corp., and XO Holdings Inc.

The NYU Stern School Compilation reveals a debt/equity capital structure of 45.7%/54.3%, a cost of debt of 4.79%, and a cost of equity of 8.43%[8] resulting in a Weighted Average Cost of Capital of 6.24% for the "telecom utility" sector.[9] The WACC for the entire data set, all 5,928 companies, was more than 150 basis points higher, at 7.82%. The NYU/ Damodaran website offers the Commission easy access to the data necessary to develop a WACC for whatever target group of companies it chooses as surrogates. Links to spreadsheets with the input data consolidated for each sector and to data sets for each of the 5928 firms in the Value Line database are included.[10] Professor Damodaran also includes a spreadsheet that calculates the WACCs contained in the NYU/Stern School Compilation – the spreadsheet allows changes in input assumptions including the equity risk premium (5% in the current compilation), cost of debt assumptions (Long Term treasury rate of 3.29% in the current compilation), use of marginal or actual tax rates (actual is used in the current compilation), and changes in the basis spread and standard deviation of the stock price (a normal distribution is used in the current Compilation).[11]

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[8] The cost of equity was developed using a Capital Asset Pricing Model (CAPM) described in documents available on the NYU/ Damodaran website.

[9] Attachment A to these comments provides a printout of the summary table for the January, 2011 "Cost of Capital by Sector" results.

[10] http://pages.stern.nyu.edu/~adamodar/New_Home_Page/data.html Data sets can be downloaded for Jan 2001 to Jan 2011 under the heading "Individual Company Information" "US".

[11] http://pages.stern.nyu.edu/~adamodar/New_Home_Page/data.html WACC calculation sheets for the industry segments can be downloaded for 1999 to 2011

Use of the NYU/Stern School Compilation WACC results as the basis for setting the interstate rate of return is appealing because the compilation was not prepared specifically for this docket, and, thus, does not include assumption sets developed by any party that has a vested interest in the outcome of this proceeding. Parties can and will argue that the modeling is too simplistic, that, for example, it *understates* the cost of equity because of the use of a Capital Asset Pricing Model (CAPM) rather than a Discounted Cash Flow (DCF) methodology, or that it *overstates* the cost of debt because so many of the smaller RLECs never go to the capital markets to raise funds (they instead borrow funds directly from RUS at rates that include no risk premium). Parties can and will argue about any WACC estimate that they have not submitted – that is the nature of this process.

The table below presents the results for additional sectors from the NYU/Stern School Compilation that provide insight into the appropriate WACC. The "Telecom Services" sector (identified as SIC 4890) contains data for 85 large telecom service providers – including the holding companies for the largest BOCs (AT&T, Verizon and Qwest), Sprint, and alternative providers like Vonage, Clearwire and Hughes Communications Inc.[12] Not unexpectedly, the WACC for this group is higher, at 7.39% than the "Telecom Utility" sector – the difference heavily driven by capital structures more heavily weighted toward the relatively

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under the heading "Data Sets" and the links for "Cost of Capital by Sector" "download."

[12] The 85 companies included in the "Telecom Services" sector can be found by clicking the link labeled "download data on which companies are included in each industry: on the "Cost of Capital by Sector" page at http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/wacc.htm.

more expensive equity than debt.[13] Also included in the analysis below are two additional sectors sometimes discussed as having similar characteristics to ILECs – Electric Utilities and Pipeline MLPs.

Excerpts From the NYU/Stern School Compilation "Cost of Capital by Industry Sectors"			
January 2011			
Industry Name	SIC	# of Firms	Cost of Capital
Telecom Utility	4810	28	6.24
Telecom Services	4890	85	7.39
Electric Utilities	4911	62	5.17 – 5.24
Pipeline MLPs	4619	11	6.55
Total Market		5928	7.82
Source: http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/wacc.htm			

In the past, Ad Hoc has recommended that the Commission consider the rates of return established by state commissions as evidence that the current 11.25% authorized return is too high.[14] Use of intrastate rates of return as surrogates or benchmarks for the interstate return level could be appropriate if there were recently-set state authorized-RoRs. Unfortunately few state regulators have reset ILEC returns in the past decade. In the course of its 1990 prescription, the Commission concluded "recent state decisions should be given weight as a check on the reasonableness of the current cost of equity figures

[13] The debt/equity ratio for the "Telecom Services" sector is 25%/75% compared to the 46%/54% ratio exhibited by firms in the "Telecom Utility" sector.

[14] Comments of the Ad Hoc Telecommunications Users Committee at 41 – 43, *In the Matter of Special Access Rates for Price Cap Local Exchange Carriers AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services,* WC Docket No. 05-25 (June 13, 2005) (RM-10593).

reached by all the parties, and as an indicator of trends."[15] Prior to that, in 1985, the Commission found that its "use of state authorized returns is analogous to the use of analysts' consensus growth forecasts in the DCF model - utilizing the judgments of a group of independent experts to assist us in prescribing the interstate rate of return."[16] In the current environment, however, there are simply too few authorized returns upon which to rely.

The most recent telecom-specific rate of return that our investigation (which admittedly may have missed some activity) uncovered was contained in a May, 2007 Hearing Examiner's Report at the Maine Public Utilities Commission.[17] The Examiner's Report recommended a WACC of 8.84% for Verizon, but became moot when the Verizon exchanges in Maine were sold to Fairpoint and the PUC negotiated initial rates directly with Fairpoint rather than adopting the Verizon-specific recommendations contained in the Hearing Examiners Report.[18]

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[15] *See Prescription Order* at 7513.

[16] *Authorized Rates of Return for the Interstate Service of AT&T Communications and Exchange Telephone Carriers*, CC Docket No. 84-800, Report and Order, Phase II, 51 Fed. Reg.1795 para. 30 (1986) (NPRM para. 35).

[17] *Public Utilities Commission Investigation Into New Alternative Form of Regulation for Verizon Maine Pursuant to 35-A M.R.S.A. Sections 9102-9103,* State of Maine Public Utilities Commission, Docket No. 2005-155*, Examiner's Report (Revenue Requirement and Service Quality Issues),* May 9, 2007, Table 1.

[18] Ad Hoc's research reveals nothing more recent than a 2004 New Hampshire PUC decision establishing and approving a rate of return of 8.2% for Verizon New Hampshire. *Investigation into Cost of Capital*, New Hampshire PUC Docket No. DT 02-110, Order No. 24, 265, January 16, 2004.

B. The Commission Must Avoid The Temptation To Set The Rate Of Return Too High

In represcribing the rate of return, the Commission should be guided by facts and experience, not promises, speculation or threats. Although the Commission has not initiated a rate prescription proceeding for over a decade, the process is well documented in the Commission's Rules and previous orders.[19]

The Commission's experience and well-respected authority teach that it is unlikely that any specific estimate of the WACC, or rate of return set based upon the WACC, will be exactly right for an extended period. A theoretically perfect rate of return is illusory.[20] If the prescribed rate of return is far too low, providers may be less likely to attract the capital necessary to invest in upgrading and maintaining their facilities; if too high, providers obtain a windfall, at consumers' expense. While the components of the WACC are in many ways straightforward, the process for determining the WACC also relies on inputs that can be quite

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[19] *See, e.g., In the Matter of Amendment of Parts 65 and 69 of the Commission's Rules to Reform the Interstate Rate of Return Represcription and Enforcement Processes*, CC Docket No. 92-133, Report and Order, 10 FCC Rcd 6788, 6802-03 (1995).

[20] In his seminal 1970 tome "The Economics of Regulation" Alfred Kahn states "that there really is such a thing as the correct rate of return, but that it is impossible to measure it." He further describes the process "as a sort of collective bargaining process, with the commission mediating between investors and consumers." Kahn, Alfred E. *The Economics of Regulation: Principles and Institutions,* Volume I at 43 (New York, John Wiley & Sons, Inc. 1970). *See also generally*, Ian M. Dobbs, *Setting the regulatory WACC using Simulation and Loss Functions – The Case for Standardising Procedures*, Newcastle University Business School, Draft 7 (September 2007), p. 2 (accessed January 10, 2012 at http://www.staff.ncl.ac.uk/i.m.dobbs/Files/aror%20and%20simulation%20crni%202008%20n.pdf.)

subjective – in particular, assessments of the risks associated with the business. The Commission must distinguish between the desire to promote Broadband deployment (as it is doing through the CAF) and, in the alternative, over-rewarding eligible providers for participating in the CAF, at the expense of consumers, by accepting unsubstantiated claims that the providers' investment risks remains high.[21]

Over the past two decades, it has become increasingly common for telecommunications providers to link Broadband investment "commitments" to desired regulatory concessions, such as earnings flexibility and deregulation. Ad Hoc has previously rebutted carrier assertions that they make network investments more quickly and reliably as a result of these regulatory bargains.[22]

The "Preliminary Analysis" in the *Report and Order and Further Notice of Proposed Rulemaking* begins with reference to multiple studies demonstrating WACCs of between 6% and 8% and concludes with the statement that "this preliminary analysis would conservatively suggest that the authorized interstate rate of return should be no more than 9 percent."[23] If the ultimate results of the Commission's investigation reveal a "zone of reasonableness" for the WACC of between 6% and 8%, then the interstate rate of return should fall within, not above or below, that range.

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[21] Kahn, *Id.* at 54. "Merely permitting all regulated companies as a matter of course to earn rates in excess of the cost of capital does not supply the answer; there has to be some means of seeing to it that those supernormal returns are *earned*."

[22] *See* Ad Hoc Telecommunications Users Committee, Comments, at 12 – 16, GN Docket No. 09-51, June 3, 2009.

[23] *FNPRM* at 1057.

In setting a rate of return within the zone of reasonableness, Ad Hoc urges the Commission to err on the low-side of the zone. The reforms that the Commission adopted in the *Report and Order and Further Notice of Proposed Rulemaking* will allow incumbent LECs to earn a reasonable return on their investment.[24] The additional Connect America Fund (CAF) dollars that will be available as a result of using a reduced return level in the calculation of historic high cost funds (allowing transfer of more High Cost Fund dollars to the CAF) should mitigate the potential risk of setting a rate so low that carriers will not be incented to invest in Broadband. If evidence arises that individual carriers are unable to attract capital or undertake or maintain Broadband investment at the lower rates of return, they can petition for a "Total Cost and Earnings Review," as detailed in Section XIII.G of the *Report and Order and Further Notice of Proposed Rulemaking*. Moreover, the very structure of the CAF neutralizes most of the risk associated with an ETC's Broadband investment. CAF funds are allocated only to locations where competitive deployment has not occurred; only one ETC per area qualifies for the support, and CETC identical support has been eliminated. Thus, risk associated with actual or potential competition is virtually non-existent. An ILEC also has a right of first refusal; in other words, it gets to evaluate the investment before committing to provide service. Finally, many smaller LECs will obtain debt financing not from the capital markets or traditional debt providers, but instead at the lowest levels possible through the RUS and similar programs, thus minimizing their financial risk. These factors operate to

[24] *Report and Order and Further Notice of Proposed Rulemaking*, para. 924.

minimize the risks associated with new Broadband investment by rate of return ILECs.

C. Prescription Of A Lower Rate Of Return May Be Important To Adoption Of Broadband Service

Prescription of a lower rate of return is important to the adoption of Broadband service, as well as to setting appropriate levels of CAF subsidization of Broadband deployment and availability. In the *Report and Order and Further Notice of Proposed Rulemaking*, the Commission recognizes that prescription of the proper rate of return will be important to determining the amount of CAF support awarded to providers of Broadband service. The availability, by itself, of Broadband is, however, not enough. The National Broadband Plan (NBP) puts it well, "We [the Nation] should lead the world where it counts – in the *use* of the Internet."[25] If use of Broadband service is essential to our Nation's well-being,[26] the Commission should not want Broadband service providers to have unfettered pricing power that they can use in ways which may maximize their profits, but repress demand for and use of Internet service. With all due respect to the Commission, the challenge of our time is not only, "[t]o ensure that all Americans are served by networks that support high-speed Internet access…."[27] Instead, the Commission's challenge is to ensure all Americans receive Broadband service at rates that are reasonable and that encourage adoption and use.

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[25] *Connecting America: The National Broadband Plan* (the NBP) at 4.

[26] *Connect America Fund* (Report and Order and Further Notice of Proposed Rulemaking), FCC 11-161, paras. 3-4; NBP at 3-4 (emphasis added).

[27] *Report and Order and Further Notice of Proposed Rulemaking*, para.5.

1. At This Time The Commission Cannot Reasonably Rely On The Market To Set Broadband Rates At Levels That Will Encourage Adoption And Use Of The Internet

Price constraining competition may not be commonplace in the Broadband services marketplace. In some markets, including in all likelihood all areas where a provider is receiving CAF support and where rate of return carriers continue to receive High Cost support, there will be only one provider of Broadband services.[28] According to the Commission, 96% of the Nation's population will receive Broadband service under monopolistic or duopolistic conditions. Under these circumstances, the Commission understandably has expressed concern about Broadband competition in the United States and should be concerned about the reasonableness of Broadband rates.[29]

That monopolists can impose supracompetitive prices for service with low elasticities of demand is indisputable. The Commission has also acknowledged that duopolistic pricing may also lead to supracompetitive pricing, while stating that under certain conditions duopolists may not impose supracompetitive prices.[30] To support its concerns about the danger presented by duopolies, the Commission has pointed to theoretical models and empirical evidence.[31] The Commission has not, on the other hand, offered evidence of conditions in the

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[28] NBP at 145 (CAF support should induce a single private firm to serve an area).

[29] *Id.* 37 (emphasis added).

[30] *Petition of Qwest Corporation for Forbearance Pursuant to 47 U.S.C. §160(c) in the Phoenix, Arizona Metropolitan Statistical Area,* 25 FCC Rcd 8622 (June 22, 2010) (*Qwest Phoenix Order*).

[31] *Id.* paras. 30 and 31.

Broadband services market that would cause duopolists to not impose supracompetitive prices.

Nevertheless, the Commission has suggested that it may tolerate excessive Broadband services prices to encourage deployment of such services.[32] Ad Hoc previously advised the Commission that past experiences of state regulators belie industry assertions that network modernization depends on deregulation or relaxed regulation.[33] Ad Hoc pointed to failures in New Jersey, Pennsylvania, Indiana and New Mexico as examples of BOC promises of network investment and modernization that were not honored.[34] Whether in the form of promises or veiled threats, industry claims that Broadband will come only if the Commission does not actively regulate Broadband should be unavailing.

2. The Commission Must, At A Minimum, Rigorously Collect Internet Service Pricing Data, And Make The Data Publicly Available.

It would be irrational for the Commission to provide increased government subsidies to extend and improve Broadband service, but then to rely on a failed market to produce the reasonable rates that will stimulate adoption and use of the Internet. That the Commission put itself in this position as a result of a prior decision to not classify Internet access service as telecommunications is regrettable, but need not mean that the Commission has no control over Broadband prices, and thus, no control over conditions that may directly affect

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[32] *Id.* para 39.

[33] Ad Hoc, Comments, *A National Broadband Plan for Our Future*, GN Docket No. 09-51, June 3, 2009 (Comments in response to Notice of Inquiry).

[34] *Id.* at 13-14.

adoption and use of Internet access service.[35] The Commission could, of course, reconsider the relevant parts of the BWIA Order, and it could require Broadband providers to unbundle the offering of the underlying telecommunications service from Internet access service; then it could oversee the Broadband service rates if the market for such service is not effectively competitive.

At a minimum, the Commission should rigorously, "[c]ollect data that enable more detailed analyses of the market and competition and make that data more publicly available to ensure visibility into the competitive behavior of firms."[36] The obligation to ensure the reasonableness of rates for services that are infused with the public interest and that are not provided under competitive conditions is one of the Commission's most important obligations. Ad Hoc urges the Commission to evaluate market conditions carefully and, if necessary, to not shrink from changing past decisions, or from adopting new creative policies serve

[35] Footnote 185 of *Report and Order and Further Notice of Proposed Rulemaking* acknowledges that the Commission currently does not regulate rates for Broadband Internet access service. See also *The Appropriate Framework for Broadband Access to the Internet over Wireless Facilities, Universal Service Obligations of Broadband Providers, Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services, Computer III Further Remand Proceedings: Bell Operation and ONA Safeguards and Requirements, Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. §160(c) with Regard to Broadband Services Provided via Fiber to the Premises; Petition of the Verizon Telephone Companies for Declaratory Ruling, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises, Consumer Protection in the Broadband Era,* CC Docket No, 02-33, CC Docket No. 01-337, CC Docket Nos. 95-20, 98-10, WC Docket No. 04-242, WC Docket No. 05-271, Report and Order and Notice of Proposed Rulemaking, 20 FCC Rcd 14853 (2005) (BWIA Order).

[36] *National Broadband Plan* at 42-43.

the goals that the Commission had in mind when it adopted the *National Broadband Plan.*

D. Conclusion

In view of the foregoing, Ad Hoc urges the Commission to (1) use publicly available data contained in NYU/Stern School Compilation to develop the WACC used to represcribe the interstate rate of return, (2) set the represcribed interstate rate of return at the lower end of the range of the WACC determined from the NYU/Stern School Compilation, (3) rigorously gather data on Internet service prices and make that data publicly available, and (4) if necessary, revisit past decisions that may inhibit the Commission from assuring that Broadband rates encourage, rather than repress, demand for Internet service.

Respectfully submitted,

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ATTACHMENT A

Cost of Capital by Sector

Data Used: Value Line database, of 5928 firms

Date of Analysis: Data used is as of January 2011

Variable Definitions can be obtained by clicking here

Download Detail on which companies are included in each industry

Industry Name	Number of Firms	Beta	Cost of Equity	E/(D+E)	Std Dev in Stock	Cost of Debt	Tax Rate	After-tax Cost of Debt	D/(D+E)	Cost of Capital
Advertising	28	1.79	12.26%	73.23%	97.15%	6.29%	12.86%	5.48%	26.77%	10.45%
Aerospace/Defense	63	1.15	9.04%	80.88%	63.51%	4.79%	21.10%	3.78%	19.12%	8.03%
Air Transport	40	1.21	9.32%	65.51%	69.26%	5.29%	22.30%	4.11%	34.49%	7.52%
Apparel	48	1.35	10.05%	86.36%	77.62%	5.29%	20.86%	4.19%	13.64%	9.25%
Auto Parts	47	1.78	12.17%	80.21%	85.62%	5.79%	13.45%	5.01%	19.79%	10.75%
Automotive	19	1.50	10.79%	47.94%	56.57%	4.79%	20.43%	3.81%	52.06%	7.15%
Bank	418	0.75	7.02%	53.80%	58.22%	4.79%	13.89%	4.12%	46.20%	5.68%
Bank (Canadian)	7	0.86	7.61%	87.90%	28.97%	4.29%	20.27%	3.42%	12.10%	7.10%
Bank (Midwest)	40	0.96	8.09%	59.16%	49.99%	4.29%	18.02%	3.52%	40.84%	6.22%
Beverage	34	0.92	7.87%	88.43%	73.62%	5.29%	19.08%	4.28%	11.57%	7.45%
Biotechnology	120	1.13	8.96%	88.31%	98.40%	6.29%	5.74%	5.93%	11.69%	8.61%
Building Materials	47	1.33	9.94%	58.35%	83.71%	5.79%	11.69%	5.11%	41.65%	7.93%
Cable TV	24	1.43	10.44%	59.38%	54.86%	4.79%	22.98%	3.69%	40.62%	7.70%
Canadian Energy	10	1.14	8.98%	77.86%	36.68%	4.29%	10.36%	3.85%	22.14%	7.85%
Chemical (Basic)	17	1.28	9.71%	84.21%	53.72%	4.79%	22.39%	3.72%	15.79%	8.77%
Chemical (Diversified)	31	1.51	10.85%	82.60%	72.83%	5.29%	23.87%	4.03%	17.40%	9.66%
Chemical (Specialty)	83	1.37	10.14%	81.26%	78.35%	5.29%	14.85%	4.50%	18.74%	9.08%
Coal	25	1.59	11.24%	86.09%	68.06%	5.29%	13.17%	4.59%	13.91%	10.31%
Computer Software/Svcs	247	1.06	8.58%	95.53%	82.47%	5.79%	13.88%	4.99%	4.47%	8.42%
Computers/Peripherals	101	1.27	9.66%	91.63%	104.65%	7.29%	8.94%	6.64%	8.37%	9.41%
Diversified Co.	111	1.22	9.38%	50.06%	69.50%	5.29%	17.14%	4.38%	49.94%	6.89%
Drug	301	1.11	8.84%	87.64%	103.61%	7.29%	6.72%	6.80%	12.36%	8.59%
E-Commerce	52	1.14	8.98%	95.62%	65.85%	5.29%	17.19%	4.38%	4.38%	8.78%
Educational Services	37	0.79	7.26%	91.84%	72.23%	5.29%	27.32%	3.84%	8.16%	6.98%
Electric Util. (Central)	23	0.78	7.19%	50.80%	31.21%	4.29%	25.40%	3.20%	49.20%	5.23%
Electric Utility (East)	25	0.73	6.93%	57.23%	27.40%	4.29%	30.56%	2.98%	42.77%	5.24%
Electric Utility (West)	14	0.75	7.02%	54.59%	25.12%	4.29%	31.47%	2.94%	45.41%	5.17%
Electrical Equipment	79	1.32	9.88%	90.17%	75.96%	5.29%	15.54%	4.47%	9.83%	9.35%
Electronics	158	1.13	8.93%	84.46%	89.78%	5.79%	12.85%	5.05%	15.54%	8.32%
Engineering & Const	17	1.65	11.55%	92.65%	75.32%	5.29%	28.52%	3.78%	7.35%	10.98%
Entertainment	75	1.72	11.88%	72.47%	91.19%	6.29%	14.68%	5.37%	27.53%	10.09%
Entertainment Tech	31	1.39	10.23%	92.76%	93.17%	6.29%	7.49%	5.82%	7.24%	9.91%
Environmental	69	0.85	7.54%	70.86%	95.81%	6.29%	11.02%	5.60%	29.14%	6.97%
Financial Svcs. (Div.)	230	1.37	10.15%	42.40%	81.52%	5.79%	18.63%	4.71%	57.60%	7.02%
Food Processing	109	0.87	7.63%	77.53%	58.43%	4.79%	21.80%	3.75%	22.47%	6.76%
Foreign Electronics	9	1.14	8.98%	77.19%	39.08%	4.29%	30.06%	3.00%	22.81%	7.61%
Funeral Services	5	1.22	9.40%	66.32%	41.91%	4.29%	29.02%	3.05%	33.68%	7.26%
Furn/Home Furnishings	30	1.67	11.63%	79.25%	73.60%	5.29%	16.87%	4.40%	20.75%	10.13%
Healthcare Information	26	0.94	8.00%	95.36%	65.23%	5.29%	22.42%	4.10%	4.64%	7.82%
Heavy Truck/Equip Makers	8	1.94	13.00%	68.30%	86.20%	5.79%	19.97%	4.63%	31.70%	10.35%
Homebuilding	24	1.39	10.24%	52.90%	78.72%	5.29%	6.07%	4.97%	47.10%	7.76%
Hotel/Gaming	52	1.76	12.09%	67.08%	88.25%	5.79%	15.93%	4.87%	32.92%	9.71%
Household Products	22	1.17	9.13%	84.47%	50.80%	4.79%	27.46%	3.47%	15.53%	8.25%
Human Resources	24	1.44	10.51%	91.62%	72.08%	5.29%	23.73%	4.03%	8.38%	9.96%
Industrial Services	137	0.96	8.08%	79.20%	68.67%	5.29%	20.50%	4.21%	20.80%	7.28%
Information Services	26	1.10	8.78%	83.19%	49.65%	4.29%	22.44%	3.33%	16.81%	7.86%
Insurance (Life)	31	1.39	10.22%	84.54%	68.87%	5.29%	20.29%	4.22%	15.46%	9.29%
Insurance (Prop/Cas.)	67	0.92	7.90%	89.99%	40.46%	4.29%	19.50%	3.45%	10.01%	7.46%
Internet	180	1.11	8.82%	98.46%	111.24%	7.29%	7.89%	6.71%	1.54%	8.79%
Machinery	114	1.22	9.37%	77.81%	68.30%	5.29%	19.61%	4.25%	22.19%	8.23%
Maritime	53	1.37	10.14%	41.89%	66.65%	5.29%	6.54%	4.94%	58.11%	7.12%
Medical Services	139	0.88	7.70%	72.10%	85.75%	5.79%	20.56%	4.60%	27.90%	6.84%
Medical Supplies	231	1.02	8.40%	89.71%	80.03%	5.79%	13.12%	5.03%	10.29%	8.05%

Metal Fabricating	30	1.44	10.50%	84.58%	68.64%	5.29%	22.51%	4.10%	15.42%	9.51%
Metals & Mining (Div.)	69	1.33	9.93%	90.08%	107.77%	7.29%	7.07%	6.77%	9.92%	9.62%
Natural Gas (Div.)	32	1.25	9.56%	74.09%	55.80%	4.79%	15.07%	4.07%	25.91%	8.14%
Natural Gas Utility	27	0.65	6.52%	61.71%	28.01%	4.29%	23.93%	3.26%	38.29%	5.27%
Newspaper	13	1.71	11.84%	68.12%	86.68%	5.79%	29.44%	4.09%	31.88%	9.37%
Office Equip/Supplies	24	1.45	10.55%	68.91%	67.02%	5.29%	14.81%	4.51%	31.09%	8.67%
Oil/Gas Distribution	12	0.97	8.15%	57.04%	75.84%	5.29%	15.06%	4.49%	42.96%	6.58%
Oilfield Svcs/Equip.	95	1.48	10.70%	84.08%	61.68%	4.79%	16.42%	4.00%	15.92%	9.63%
Packaging & Container	27	1.06	8.59%	69.20%	59.19%	4.79%	20.44%	3.81%	30.80%	7.12%
Paper/Forest Products	37	1.52	10.88%	58.39%	94.44%	6.29%	15.23%	5.33%	41.61%	8.57%
Petroleum (Integrated)	23	1.21	9.34%	84.48%	45.93%	4.29%	27.13%	3.13%	15.52%	8.38%
Petroleum (Producing)	163	1.36	10.11%	81.65%	90.21%	6.29%	8.47%	5.76%	18.35%	9.31%
Pharmacy Services	19	0.96	8.11%	83.07%	67.06%	5.29%	25.09%	3.96%	16.93%	7.40%
Pipeline MLPs	11	0.85	7.56%	70.33%	27.93%	4.29%	3.03%	4.16%	29.67%	6.55%
Power	68	1.34	9.99%	50.29%	92.21%	6.29%	7.58%	5.81%	49.71%	7.91%
Precious Metals	74	1.18	9.21%	93.67%	90.67%	6.29%	9.47%	5.69%	6.33%	8.99%
Precision Instrument	83	1.27	9.65%	89.93%	66.72%	5.29%	12.02%	4.65%	10.07%	9.15%
Property Management	27	1.20	9.30%	40.98%	73.17%	5.29%	15.63%	4.46%	59.02%	6.45%
Public/Private Equity	8	2.18	14.19%	48.92%	88.43%	5.79%	0.43%	5.76%	51.08%	9.89%
Publishing	23	1.30	9.81%	63.34%	64.10%	4.79%	25.44%	3.57%	36.66%	7.52%
R.E.I.T.	6	1.29	9.73%	76.42%	50.28%	4.79%	10.21%	4.30%	23.58%	8.45%
Railroad	14	1.28	9.71%	78.62%	44.23%	4.29%	26.02%	3.17%	21.38%	8.31%
Recreation	52	1.50	10.79%	72.88%	85.00%	5.79%	17.23%	4.79%	27.12%	9.16%
Reinsurance	8	0.98	8.17%	86.75%	35.05%	4.29%	15.18%	3.64%	13.25%	7.57%
Restaurant	60	1.33	9.92%	86.14%	66.29%	5.29%	22.08%	4.12%	13.86%	9.12%
Retail (Special Lines)	143	1.54	10.97%	85.35%	89.31%	5.79%	19.64%	4.65%	14.65%	10.05%
Retail Automotive	15	1.44	10.48%	78.42%	55.42%	4.79%	32.05%	3.25%	21.58%	8.92%
Retail Building Supply	8	0.92	7.88%	88.02%	41.16%	4.29%	26.31%	3.16%	11.98%	7.31%
Retail Store	38	1.33	9.96%	79.86%	63.21%	4.79%	25.96%	3.55%	20.14%	8.67%
Retail/Wholesale Food	29	0.74	7.01%	70.37%	41.92%	4.29%	34.50%	2.81%	29.63%	5.77%
Securities Brokerage	25	1.25	9.53%	40.03%	54.63%	4.79%	26.95%	3.50%	59.97%	5.91%
Semiconductor	115	1.56	11.08%	94.13%	76.21%	5.29%	7.93%	4.87%	5.87%	10.72%
Semiconductor Equip	14	1.79	12.24%	94.48%	70.30%	5.29%	5.72%	4.99%	5.52%	11.84%
Shoe	18	1.31	9.86%	98.32%	57.70%	4.79%	24.51%	3.62%	1.68%	9.76%
Steel (General)	19	1.59	11.24%	80.99%	59.21%	4.79%	12.88%	4.17%	19.01%	9.90%
Steel (Integrated)	13	1.72	11.89%	73.08%	67.30%	5.29%	16.43%	4.42%	26.92%	9.88%
Telecom. Equipment	104	1.04	8.51%	90.32%	85.38%	5.79%	12.42%	5.07%	9.68%	8.18%
Telecom. Services	85	1.01	8.36%	74.59%	79.21%	5.29%	14.27%	4.54%	25.41%	7.39%
Telecom. Utility	28	1.03	8.43%	54.33%	60.33%	4.79%	24.23%	3.63%	45.67%	6.24%
Thrift	181	0.70	6.79%	92.75%	52.51%	4.79%	14.44%	4.10%	7.25%	6.59%
Tobacco	13	0.73	6.96%	82.26%	80.27%	5.79%	22.47%	4.49%	17.74%	6.52%
Toiletries/Cosmetics	15	1.27	9.64%	83.67%	63.65%	4.79%	21.52%	3.76%	16.33%	8.68%
Trucking	33	1.20	9.28%	70.35%	65.00%	5.29%	25.48%	3.94%	29.65%	7.70%
Utility (Foreign)	5	0.99	8.23%	63.02%	34.61%	4.29%	20.30%	3.42%	36.98%	6.45%
Water Utility	12	0.70	6.79%	56.22%	20.74%	3.79%	35.46%	2.45%	43.78%	4.89%
Wireless Networking	48	1.25	9.56%	84.61%	75.06%	5.29%	12.68%	4.62%	15.39%	8.80%
Total Market	**5928**	**1.15**	**9.02%**	**73.51%**	**75.65%**	**5.29%**	**15.32%**	**4.48%**	**26.49%**	**7.82%**

Last Updated in January 2011
By Aswath Damodaran